



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/647,725

08/25/2003

John F. Duff

BTO135USPT02

2168

23403 7590 04/24/2007  
SHERRILL LAW OFFICES  
4756 BANNING AVE  
SUITE 212  
WHITE BEAR LAKE, MN 55110-3205

EXAMINER

SINARS, JAMES R

ART UNIT

PAPER NUMBER

2623

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

04/24/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/647,725

Applicant(s)

DUFF ET AL.

Examiner

JAMES R. SINARS

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. The amendment filed on February 13, 2007 fails to overcome the objection to the specification as noted on the last Office Action.

Page 11, line 9 reads: "Device 40 and base station 80 of FIGS. 1 and 2...". It should read: "Device 40 and base station 80 of FIGS. 1 and 2, respectively...", since both elements do not appear in same figure.

Appropriate correction is required.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 13 and 20 have been considered but are moot in view of the new grounds of rejection. Although a new ground of rejection has been used to address additional limitations that have been added to the claims, a response is considered necessary for several of applicant's arguments.

Regarding Amendment Item 1.0, Applicant asserts that Del Castillo, U.S. Patent 6742188, discloses a method and system for addressed-based control of a device in concatenation with programming presented by a video signal, using control data embedded within the video signal. Applicant further asserts that Del Castillo does not

Art Unit: 2623

disclose, teach or suggest that such control can or should be selective, base upon the selection criteria input by a user.

Although applicant's arguments are understood, they are not persuasive for the following reasons.

Del Castillo teaches (Col. 7, Lines 57-60) that a controller uses control data to operate one or more controlled devices. He further teaches (Col. 8, Lines 8-11) that the controller may be an intelligent system that is operative to generate, select, and combine video and control data from a number of sources, in response to user input or other control signals. The controller is established to be a computer system (Col. 7, Lines 11-15; 20-Figs. 1&2), and a user may enter commands and information (Col. 12, Lines 18-20) into the computer through a keyboard (40-Fig. 2) and mouse (42-Fig. 2). Del Castillo also discloses (Col 10, Lines 25-28) that the computer operations are performed in conjunction with various inputs provided by a human operator or user that interacts with the computer.

For the reasons stated above, the amended claims notwithstanding, rejection of the application is maintained.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraph of 35 U.S.C. 102 that forms the basis for the rejections under this section made in this Office Action:

A person shall be entitled to a patent unless –

- (e) the invention was described in — (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-12, 14-19 and 21-26 are rejected under 35 U.S.C.102(e) as being anticipated by Del Castillo, U.S. Patent 6742188.

Regarding Claim 1, Del Castillo teaches:

a device for providing human perceptible (Each controlled device (Col. 8, Lines 61-66) includes a speech synthesizer, speaker, servo motors, and may include light and heat sources. These are all human perceptible characteristics.)

indicia in synchronization with a video program (Col. 6, Lines 48-55), the device comprising:

(a). a communication port adapted to receive a video input signal of the video program (The controller (10-Fig. 1) includes a data source (Col. 7, Lines 57-58) that receives or generates video data. This is evidence that a communication port to receive a video input signal as claimed is anticipated);

(b). a central processing unit in communication with the communication port, said central processing unit detecting data embedded in the video input signal (A control device (60-Fig. 1) includes a processor (Col. 8, line 58 – col. 9, line 5) that communicates with the controller (10) via an RF channel. The control device receives control data and interprets, i.e., detects the control data embedded in the video input signal.)

(c) an interface device in communication with the central processing unit for allowing user input of selection criteria (A user may enter commands and information (Col. 12, Lines 18-20) into the computer (20-Fig. 2) through a (40) keyboard and (42) mouse.) A controller (Col. 8, Lines 8-11) may select control data from user input and broadcast the control data to a controlled device, where various end effectors are actuated (Col. 9, Lines 5-9) in a particular controlled device.

(d). indicia in communication with the central processing unit (The response of the processor (Col. 9, Lines 5-9) may include actuating one or more servo motors, providing input to the speech synthesizer, or activating any of the other end effectors provided in a particular controlled device. This demonstrates that said indicia of the claim is in communication with the processor).

(e). wherein said central processing unit selectively activates said indicia upon detection of the data embedded in the video input signal (Col. 16, Lines 35-46) based upon selection criteria input by a user (Col. 9, Lines 5-9) .

Re: Claim 2, the device of claim 1 further comprising a storage device having a stored program in communication with said central processing unit, said stored program executing upon detection of the data embedded in the video input signal by said central processing unit (Col. 8, Lines 27-40, Col. 9, Line 24-34; Del Castillo describes programs running on a personal computer and microprocessor-based systems, which are evidence of a storage device for storing these programs. (See also discussion w/r to Claim 1.)

Re: Claim 3, the device of claim 1 further comprising a read-only-memory (ROM) having a stored program in communication with the central processing unit, said stored program executing upon detection of the data embedded in the video input signal by said central processing unit. (See discussion w/r to Claim 2. As for the ROM as claimed, see col. 11, line 58-60, fig. 2: 24, col. 16, line 21-24).

Re: Claim 4, the device of claim 1 further comprising a random-access-memory (RAM) in communication with the central processing unit and allowing for temporary storage of instructions or data by the central processing unit. (See discussion w/r to Claim 2. As for the RAM as claimed, see col. 11, line 58-60, fig. 2: 24, col. 16, line 21-24).

Re: Claim 5, the device of claim 1 further comprising a read-only-memory (ROM 24), a random-access-memory (RAM 25), a storage device (hard disk 27) and a bus (system bus 23), each of said read-only-memory, random-access-memory and storage device communicating with the central processing unit (21) through said bus. (Fig. 2; See discussion w/r to Claim 2.)

Re: Claim 6, the device of claim 1 wherein said device includes a base station housing (computer 20) the communication port (46 and 53), the central processing unit (21) and a wireless transmitter module (80 as shown in figure 3) in communication with

Art Unit: 2623

the central processing unit and further comprising a wireless receiver unit remote from said base station and attached to said indicia so that said indicia communicates with the central processing unit of the base station by wireless transmission. (Col. 7, Lines 30-39; Col. 15, Lines 22-36; Col. 16, Lines 16-61; Fig. 6 and 7)

Re: Claim 7, the device of claim 6 wherein said wireless receiver unit (controlled device 60 as showing in figure 7) includes a second central processing unit (microprocessor, Col. 16, Lines 20-21)

Re: Claim 8, the device of claim 7 wherein said wireless receiver unit includes a storage device (RX data buffer 65) having a stored program (control data), said storage device in communication with said second central processing unit (63) and executing upon detection of the data embedded in the video stream by the central processing unit of the base station. (Col. 16, Lines 20-24)

Re: Claim 9, the device of claim 7 wherein said wireless receiver unit includes a read-only-memory having a stored program, said read-only memory in communication with the second central processing unit and executing upon detection of the data embedded in the video stream by the central processing unit of the base station. (Col. 16, Lines 20-32)



Re: Claim 10, the device of claim 7 further comprising a random-access-memory housed in the wireless receiver unit and in communication with the second central processing unit and allowing for temporary storage of instructions or data by the second central processing unit. (Col. 16, Lines 24-29)

Re: Claim 11, the device of claim 7 further comprising a read-only-memory, a random-access-memory, a storage device and a bus housed in the wireless receiver unit, each of said read-only-memory, random-access-memory and storage device communicating with the second central processing unit through said bus. (Fig. 2 shows the common method for interconnecting the elements of Claim 11 is a system bus.)

Re: Claim 12, the device of claim 6 wherein said wireless receiver unit includes a visual indicia. (light source, Col. 8, Lines 61-66)

Re: Claim 14, the device of claim 6 wherein said wireless receiver device includes an audible indicia. (See reference w/r to Claim 12.)

Re: Claim 15, the device of claim 14 wherein said indicia includes a speaker. (speaker 43 as shown in figure 2, See reference w/r to Claim 12.)

Re: Claim 16, the device of claim 6 wherein said indicia includes a toy. (Col. 1, Lines 29-31; Col. 8, Lines 58-61)

Re: Claim 17, the device of claim 16 wherein said toy moves when said central processing unit detects the data embedded in the video input signal. (Col. 11, Lines 29-39)

Re: Claim 18, the device of claim 16 wherein said toy simulates speech when said central processing unit detects the data embedded in the video input signal. (See reference w/r to Claim 17; Col 16, Lines 42-46)

Re: Claim 19, the device of claim 1 wherein said indicia includes a visual indicia. (See reference w/r to Claim 12.)

Re: Claim 21, the device of claim 1 wherein said indicia is audible. (Col. 3, Lines 40-45; See reference w/r to Claim 18.)

Re: Claim 22, the device of claim 21 wherein said indicia includes a speaker. (See reference w/r Claim 12.)

Re: Claim 23, the device of claim 1 wherein said indicia includes a toy that moves when said central processing unit detects the data embedded in the video input signal. (See reference w/r Claim 17.)

Re: Claim 24, the device of claim 1 wherein said indicia includes a toy that simulates speech when said central processing unit detects the data embedded in the video input signal. (Col. 16, Lines 42-50)

Regarding Claim 25, this method claim is rejected because it is implemented by system Claim 26, which has been analyzed and rejected.

Regarding Claim 26 Ellis teaches system for providing human perceptible indicia in synchronization with a video program, the system comprising:

(a). means for embedding data into a broadcast signal of the video program (Col. 14, Lines 33-54; Fig.5);

(b). means for transmitting the broadcast signal in communication with the means for embedding data into the broadcast signal (The wireless modulator transmits the control data (Col. 15, Lines 9-14) to a controlled device.)

(c). means for receiving the broadcast signal from the means for transmitting the broadcast signal (The controlled device (60-Fig. 4) receives the signal on (Col. 16, Lines 24,25; 67-Fig. 4&7) an RF radio receiver);

(d). means for inputting selection criteria (The controller is established to be a computer system (Col. 7, Lines 11-15; 20 -Figs. 1&2), and a user may enter commands and information (Col. 12, Lines 18-20) into the computer through a (40-Fig. 2) keyboard and (42-Fig. 2) mouse. A controller (Col. 8, Lines 8-11) may select control data from user input and broadcast the control data to a controlled device, where various end effectors are actuated (Col. 9, Lines 5-9) in a particular controlled device.

(e) an external device (Col. 16, Lines 16, 17; 60-Fig. 7) in communication with the means for receiving the broadcast signal (Col. 16, Lines 24,25) and the means for inputting selection criteria (The controller (20-Figs. 1&2) which broadcasts control data to the controlled device (Col. 7, Line 57-Col. 8, Line 7) allows user input through a (40-Fig. 2) keyboard and (42-Fig. 2) mouse.) said external device selectively providing the indicia upon receipt of the data embedded in the broadcast signal (Col. 16, Lines 35-46) based upon selection criteria input by a user (A controller (Col. 8, Lines 8-11) may select control data from user input and broadcast the control data to a controlled device, where various end effectors are actuated (Col. 9, Lines 5-9) in a particular controlled device.)

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 13 and 20 are rejected under 35 U.S.C. 103(b) as being unpatentable over Del Castillo as applied to Claim 1, in view of Yuen et al., U.S. Patent 6668133, hereinafter referred to as Yuen.

Re: Claim 13, Del Castillo teaches the device of claim 12 wherein said indicia includes a light.

A controlled device (60-Fig. 4) may include many other types of end effectors, such as light sources (Col. 8, Lines 64, 65). Using bandwidth to provide advertising, emergency warning services and weather warnings is disclosed (Col. 2, Lines 53-60).

Del Castillo fails to teach a flashing red light.

Yuen teaches a flashing red light. A red warning light emitting diode (332-Fig. 15) will flash (Col. 21, Lines 47-50) while the instant programmer (300-Fig. 15) sends a test signal.

It would have been obvious to person having ordinary skill in the art to modify the light taught by Del Castillo, to include on/off cycling, i.e., flashing, and a red color for the benefit of providing a more noticeable indicator to the user. This would prove beneficial to both hearing, and hearing impaired subscribers for applications such as advertising, weather warning systems and program related events such as a two minute warning in a sports program.

For the reasons stated above, the previous rejections are maintained.

Re: Claim 20, Del Castillo teaches the device of claim 19 wherein said indicia includes a light.

A controlled device (60-Fig. 4) may include many other types of end effectors, such as light sources (Col. 8, Lines 64, 65). Using bandwidth to provide advertising, emergency warning services and weather warnings is disclosed (Col. 2, Lines 53-60).

Del Castillo fails to teach a flashing red light.

Yuen teaches a flashing red light. A red warning light emitting diode (332-Fig. 15) will flash (Col. 21, Lines 47-50) while the instant programmer (300-Fig. 15) sends a test signal.

It would have been obvious to person having ordinary skill in the art to modify the light taught by Del Castillo, to include on/off cycling, i.e., flashing, and a red color for the benefit of providing a more noticeable indicator to the user. This would prove beneficial to both hearing, and hearing impaired subscribers for applications such as advertising, weather warning systems and program related events such as a two minute warning in a sports program.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

Art Unit: 2623

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES R. SINARS whose telephone number is 571-270-1191. The examiner can normally be reached on M-F (ALT FRI OFF) 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHRISTOPHER C. GRANT can be reached on 571-272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

Application/Control Number: 10/647,725

Page 15

Art Unit: 2623

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James R. Sinars/



CHRISTOPHER GRANT  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600